

LINDY®

COMPUTER CONNECTION TECHNOLOGY

LINDY LCD Terminal

User Manual



LINDY Art.No. 21510 - 21515

www.LINDY.com



Warning!

Safety Precautions

- In order to avoid the risk of fire or electric shock DO NOT expose the device to liquid or a high humidity environment.
- Operate the LCD only at temperatures between +5°C and +45°C.
- There are no user serviceable parts. Qualified specialists must carry out repairs only.
- The notes and instructions regarding this device must be observed.
- This device should always to be placed upon a solid horizontal surface.
- Only clean with neutral cleaning agents and a damp cloth. Do not use liquid cleaning agents or agents containing abrasives.
- To guarantee problem-free operation please ensure that there is sufficient ventilation to prevent any damage caused by overheating. Never obstruct or block the ventilation slots or other openings with objects, and do not position the device in any location where there is insufficient ventilation.

Features

- 14.1" 1024 x 768 TFT LCD
- VGA, SVGA, and XGA video support.
- PS/2 touch pad.
- 105 keys mechanical switch keyboard
- Dimensions: Width 448mm x Height 44mm x Depth 590mm

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CHAPTER 1 KVM Terminal LCD INSTALLATION

1-1 INSTALLING THE DRAWER INTO A 19" CABINET

1. Fix the front side panel onto the front side of your 19" cabinet
2. Fix the screws in the back onto the rear side of your 19" Cabinet. The mounting rails may be adjusted to fit different cabinet depths between 600mm – 750 mm (If your cabinet depth is over 750mm then please contact us.)



1-2 OPENING THE LCD DISPLAY DRAWER

1. Turn the key clockwise to unlock the LCD/Keyboard drawer.



2. Gently slide the drawer forward out of the rack.



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- Carefully lift the LCD display into a suitable viewing position. Now gently slide the drawer back to a comfortable position.



1-3 CLOSING THE LCD DISPLAY DRAWER

- To close the drawer – pull the drawer forward, and gently fold down the display.
- While pushing back on the drawer it will be necessary to press the two latches on either side of the rails. The drawer can now be pushed back into a closed position.
- Turn the key in an anti-clockwise direction to lock the drawer.



1-4 Cable connections

- Make sure the Computer or KVM switch you are connecting is turned OFF!
- Attach suitable cables to the control ports of your computer or KVM switch.



- Plug the AC power cord.
- Turn ON the power switch.
- Turn on the connected PC or KVM switch

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CHAPTER 2 LCD DISPLAY

2-1 Video Input Pin Assignment

The KVM Terminal LCD uses a standard DDC compatible 15-pin VGA connector.

2-2 The Display Timing

Applicable video timing:

The following table lists the display modes best suited for use with the LCD display. If you choose a video mode which is not listed then this may result in an unsatisfactory picture.

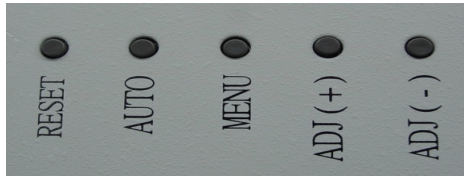
VESA MODES				
Mode	Resolution	Horizontal		Nominal Pixel Clock (MHz)
		Nominal Frequency +/- 0.5KHz	Vertical Nominal Frequency +/-1Hz	
VGA	640*350@85Hz	37.861	85.080	31.500
	640*400@85Hz	37.861	85.080	31.500
	720*400@85Hz	37.927	85.039	35.500
	640*480@60Hz	31.469	59.940	25.175
	640*480@72Hz	37.861	72.809	31.500
	640*480@75Hz	37.500	75.000	31.500
SVGA	640*480@85Hz	43.269	85.008	36.000
	800*600@56Hz	35.156	56.250	36.000
	800*600@60Hz	37.879	60.017	40.000
	800*600@72Hz	48.077	72.188	50.000
	800*600@75Hz	46.875	75.000	49.500
XGA	800*600@85Hz	53.674	85.061	56.250
	1024*768@60Hz	48.363	60.004	65.000
	1024*768@72Hz	56.476	70.069	75.000
	1024*768@75Hz	60.023	75.029	78.750
	1024*768@85Hz	68.677	84.997	94.500

IBM MODES				
Mode	Resolution	Horizontal		Nominal Pixel Clock (MHz)
		Nominal Frequency +/- 0.5KHz	Vertical Nominal Frequency +/-1Hz	
EGA	640*350@70Hz	31.469	70.086	25.175
CGA	640*400@70Hz	31.469	70.086	25.175
DOS	720*400@70Hz	31.469	70.087	28.322
VGA	640*480@60Hz	31.469	59.940	25.175
XGA	1024*768@72Hz	57.515	72.100	75.000
XGA	1024*768@87Hz Interlaced	35.522	43.479	44.900

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2-3 The Display Controls

Display Controls



SWITCH NO.	FUNCTION
1	RESET
2	AUTO CONFIG
3	MENU
4	ADJUST (+)
5	ADJUST (-)

- 1 Reset: Hardware Reset
- 2 Auto: Auto adjusts the image.
- 3 Menu: Enter the OSD adjust menu and select the menu.
- 4 Adjust (+): To scroll up in menu or to increase value of selected item.
- 5 Adjust (-): To scroll down in menu or to decrease value of selected item.

2-4 Screen Adjustment Operation Procedure

1. Entering the screen adjustment

Push the **[3]** button once to display the main menu of the screen adjustment.

2. Entering the settings

Use the Adjust (+) and Adjust (-) buttons to select the desired setting icon and push the **[3]** button to enter sub-menu.

3. Change the settings

After the sub-menu appears, use the Adjust (+) and Adjust (-) buttons to change the setting values.

4. Save

After finishing the adjustment, select **exit** icon button to exit and set save "yes", and then push **[3]** to save.

5. Return & Exit the main menu

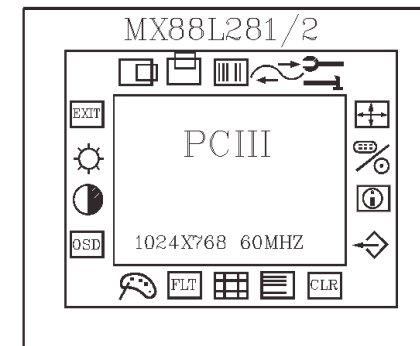
To go back to the previous menu or exit the screen adjustment, push the **[3]** button and select **exit** icon to exit the main menu.

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2-5 Main Menu








The OSD main menu is displayed on screen when **[3]** key is pressed. The OSD menu is a combination of graphic and text display. The bottom line of the main menu shows the current selected or active menu item.

The adjust (+) and adjust (-) keys are used to scroll through items within the menu. The selected item is highlighted as the scrolling move along. The **[3]** key is used to close the sub-menu.



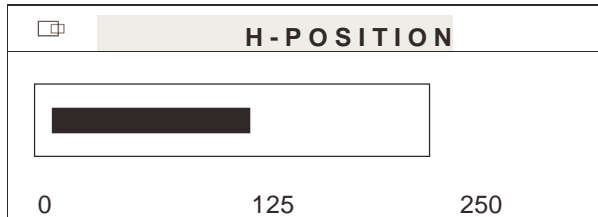
	H Position	Adjust the horizontal image position
	V Position	Adjust the vertical image position
	Clock	Adjust the pixel clock
	Phase	Adjust the pixel phase
	Auto Comfit	Auto comfit the clock phase and position
	EXPAND	Expand the image
	INPUT SELECT	Select the input signal source
	INFORMATION	Check the Input information
	RECALL	Recall EEPROM default
	CLEAR EEPROM	Set to the factory default

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	LINE WRITE	Test display
	SCALE UP	Don't care
	EDGE FLITER	Adjust the image sharpness
	MISC FUNC	Adjust the image colour
	OSD ADJUST	Set up OSD position and size
	CONTRAST	Sets the contrast of the display
	BRIGHTNESS	Sets the brightness of the display
	EXIT	Exit the menu and save

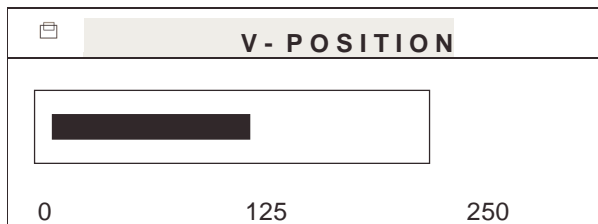
2-6 Horizontal Position

The item "H-Position" is used to adjust the horizontal image position. A slider with current value is displayed. The range of the horizontal position adjustment value is 0 to 250.



2-7 Vertical Position

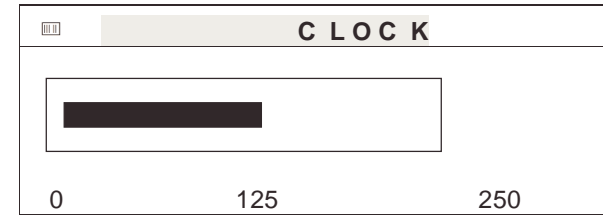
The item "V-Position" is used to adjust the vertical image position. A slider with current value is displayed. The range of vertical position adjustment value is 0 to 31.



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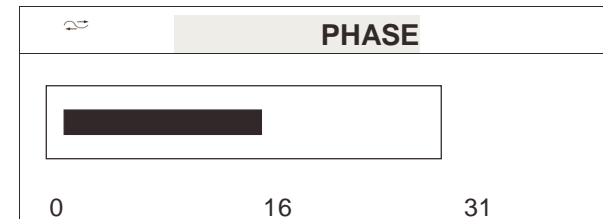
2-8 Clock

The item "Clock" is used to adjust the number of clocks (pixels) per line (sample per line). A slider with current value is displayed.



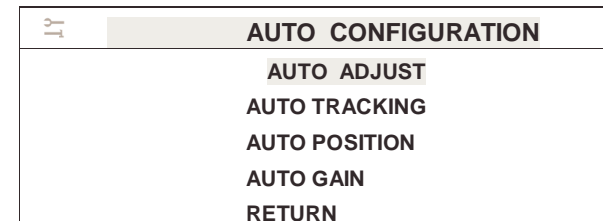
2-9 Phase

The item "Phase" is used to adjust the ADC sample pixel clock. A slider with current value is displayed. The range of phase adjustment value is 0 to 31 for 0 to 360 degrees.



2-10 Auto Configuration


The main menu item "Auto config" is used to perform automatic configuration of the phase, clock, colour, vertical and horizontal position. Select sub-menu "Auto adjust" to adjust phase, clock, colour and position. Select "Auto tracking" to adjust phase and clock. Select "Auto position" to adjust horizontal and vertical position. Select "Auto gain" to adjust colour.



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2-11 Expand

The main menu "Expand" is used to adjust display size, select the sub-menu, zoom "In/Out" to adjust the display size from -15 to 15.

	EXPAND
	1 : 1
	FULL SCREEN
	ASPECT RATIO
	ZOOM IN/OUT
	RETURN


2-12 Input Select

Please select to sub-menu "VGA"

	INPUT SELECT
	VGA
	NTSC VISEO IN
	PAL VIDEO IN
	RETURN

2-13 Information

This item displays VGA Input information.

	INFORMATION
	1024 x 768 60HZ
	HS1PRD : 2035
	VS1PRD : 806
	HS1PLS : 204
	VS1PLS : 6
	VTOTAL: 0
	SCAN : NINT
	VS1POL : NEG
	VS1POL : NEG
	081aS15 092899

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2-14 Recall

The item "Recall" is used to set the LCD to the default values. "Yes" sets the horizontal, vertical, phase, clock to default values.

	RECALL
	YES NO


2-15 Clear EEPROM

The item "Clear EEPROM" is used to set the EEPROM to factory default.

	CLEAR EEPROM
	YES NO

2-16 Line Write

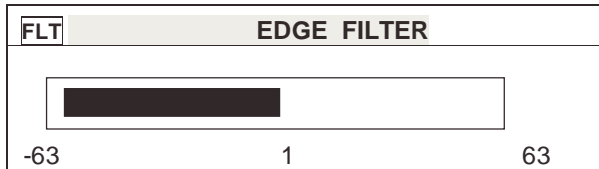
This item is used to display colour bar, dot, cross line and H pattern.

	Still Mode
	MOTION MODE
	COLOR BAR
	DOT x 1
	DOT x 2
	DOT x 3
	CHECK x 1
	CHECK x 2
	CHECK x 3
	H PATTERN
	RETURN

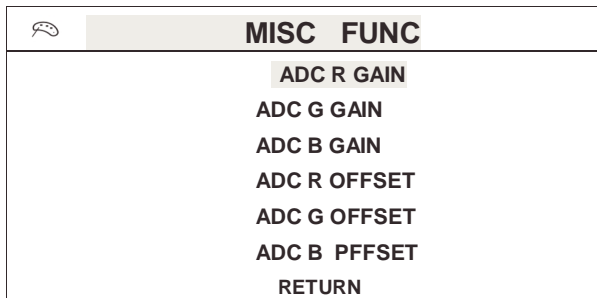
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2-17 Edge Filter

The main item "Edge Filter" is used to adjust the sharpness of the display. The range of the adjustment is -63 to 63.



2-18 MISC FUNC



ADC R GAIN (Analog / Digital Converter Gain Settings)

The item "ADC R GAIN" is used to adjust the gain of red channel in ADC. The range of the adjustment value is 0 to 255.

ADC G GAIN

The item "ADC G GAIN" is used to adjust the gain of green channel in ADC. The range of the adjustment value is 0 to 255.

ADC B GAIN

The item "ADC B GAIN" is used to adjust the gain of blue channel in ADC. The range of the adjustment value is 0 to 255.

ADC R OFFSET

The item "ADC R OFFSET" is used to adjust the offset of red channel in ADC. The range of the adjustment value is 0 to 63.

ADC G OFFSET

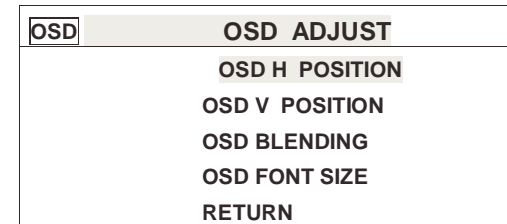
The item "ADC G OFFSET" is used to adjust the off set of green channel in ADC. The range of the adjustment value is 0 to 63.

ADC B OFFSET

The item "ADC B OFFSET" is used to adjust the off set of blue channel in ADC. The range of the adjustment value is 0 to 63.

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2-19 OSD Adjust



OSD H Position

The item "OSD H Position" is used to adjust the OSD menu horizontal position. The range of the adjustment value is 0 to 255.

OSD V Position

The item "OSD V Position" is used to adjust the OSD menu vertical position. The range of the adjustment value is 0 to 255.

OSD Blending

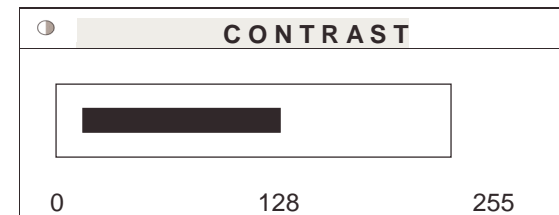
The item "OSD Blending" is used adjust the appearance of the OSD menu. There are four steps for selection.

OSD Font Size

The item "OSD Font Size" is used adjust the size of the OSD menu. There are four steps for selection.

2-20 Contrast

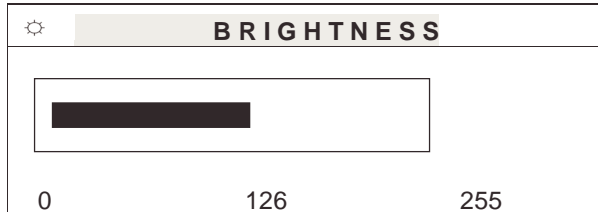
The main menu item "Contrast" is used to adjust the contrast of the panel. A slider with current contrast value is displayed. The range of contrast adjustment value is 0 to 255.



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2-21 Brightness

The main menu item "Brightness" is used to adjust the brightness of the panel. A slider with current brightness value is displayed. The range of brightness adjustment value is 0 to 255.



2-22 EXIT

Exit the menu and save.



RadioFrequency Energy, Certifications

Shielded cables must be used with this equipment to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

European EMC directive 89/336/EEC CE statement

This equipment complies with the requirement for CE mentioned in the European Directive and Standards EN55022 and EN55024. This equipment has been tested and found to comply with the limits (for a class B computing device) in accordance with the specifications in the European Standard EN55022. These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference to radio or television reception. However, there is no guarantee that harmful interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to correct the interference with one or more of the following measures: (a) Reorient or relocate the receiving antenna. (b) Increase the separation between the equipment and the receiver. (c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected. (d) Consult the supplier or an experienced radio / TV technician for help.

FCC Compliance Statement (United States)

This equipment has been tested and found to comply with part 15 of FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
This device must accept any interference received. Including interference that may cause undesired operation.

Canadian Department of Communications RFI statement

This equipment does not exceed the class B limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le règlement sur le brouillage radioélectriques publié par le ministère des Communications du Canada

